Time – 1hour 15min   **F.M. – 75**

(1)   Write in Odia the meaning of the following sentences: **[10 x 2]**
If you study at Rtapalli you will learn many new branches of mathematics. Some of them are
Algebra, Geometry, Trigonometry and Calculus. You must have heard about Newton, who
discovered the Law of Gravity (ମାଧ୍ୟାକର୍ଷଣ). Newton from England and Leibniz from Germany are
given credit for starting a new branch of mathematics called Calculus. But now people are finding
out that a lot of work in this important branch of mathematics was done by an Indian
mathematician, Madhava from Kerala, about two hundred years before Newton. Then his students
like Neelakanta, and Jyestadeva took his work in calculus further. A school of mathematics and
astronomy started by Madhava in the 14th century is now famously known as the Kerala School of
Mathematics. Madhava extended the work done by Aryabhata in the 5th century. India's first
satellite in 1975 was named after Aryabhata. We should be proud of these Indian mathematicians.

(2) Translate the following sentences into English.   **[10x2]**
ତୁମେ କ'ଣ ଚାଲିକି ସ୍କୁଲ ଯାଅ? ନଇ ଆରପଟେ ଆମ ଘର । ଆମେ ଡଙ୍ଗାରେ ସ୍କୁଲ ଯାଉ । ଆସନ୍ତା ବର୍ଷ ନଇରେ ନୂଆ ପୋଲଟେ
ତିଆରି ହେବ । ତମ ମା' କ'ଣ କରନ୍ତି? ମୋ ମା ଘରର ଯତ୍ନ ନିଅନ୍ତି । ତମ ଭଉଣୀ କାହିଁକି ସବୁଦିନ ସ୍କୁଲ ଅସେନି? ସେଟା ଠିକ
ନୁହଁ । ତାଙ୍କର ନିୟମିତ ସ୍କୁଲ ଅସିବା ଉଚିତ । ବାପାଙ୍କୁ କହିବ ସେ ମୋ ସହ କଥା ହେବେ ।

(3) Make sentences using any 7 of the following: **[7x2]**
Remember, in front of, progress, recognise, unknown, compassion, decide, nowhere, preparation

(4) Correct the mistakes in the following sentences.   **[6]**
(i) Why you are not telling the truth?   (i) I will not go to home recently. (iii) Both Gopala and I am
going to play the match tomorrow. (iv) I have suffering in high fever since yesterday (v) Did not I
told you to inform your father? (vi) Rama catched a ant moving on his shirt.

(5) Write in Odia the meaning of the following sentences: **[3 x 2]**
Blue sky with white clouds and a beautiful rainbow above green trees make our world a very
colourful place. But the science behind the blue sky is not the same as the science behind a green
tree. The science of colours on a soap bubble is not same as the science of colour separation by a
prism.

(6) Read the following passage and answer the questions below in Odia:
Let us look at what happens to light in the following situations:
(a) Light scattering (ଆଲୋକର ବିଚ୍ଛୁରଣ, ବିଛାଡ଼ି ହବା): When light from the Sun passes through our
atmosphere it gets scattered by the air molecules (ଅଣୁ) and other particles (କଣିକା). Different colours
scatter differently. This scattering is the reason behind <u>blue sky, red sunset and white clouds</u>.
(b) Refraction of light (ପ୍ରତିସରଣ): White sunlight has all the colours that we see in the rainbow. All
these colours travel at the same speed in air. But different colors travel at different speeds when
light enters glass or water. Because of this, different colours bend in different directions when
sunlight enters glass or water. This bending of light is known as refraction. This refraction is the
reason behind the colours of a <u>rainbow</u> and colours separated by<u> a prism</u>.
(c) Absorption of light (ଶୋଷଣ ବା ବିଶୋଷଣ): (absorb - ଶୋଷିନେବା)
We see an object when light falls on it and gets reflected into our eyes. When white sunlight with
all the colors falls on your red shirt, the shirt absorbs all colors except red, which then comes back
to our eye. The shirt looks red. If an object absorbs all the colors then it would look black. This
absorption of light is behind the colours of <u>clothes and green trees</u>.

     Answer the following questions <u>in Odia</u> based on the above passage: **[3 x 3]**
   (i) Explain in Odia how the Rtapalli school building looks white.
   (ii) Explain in Odia the science behind blue sky.
   (iii) Give the name of the science behind: (a) black hair, (b) a rainbow, and (c) a yellow flower.